

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: PORTFOLIO

Report Number: P249400

Luminaire Tested: **LSR8B90D010 EC8B90930 8LBDW0GPH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249400  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13957)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B90D010 EC8B90930 8LBDW0GPH  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
97 CRI 3000 CCT WITH GRAPHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7717.0 lumens  
Efficiency: N/A  
Efficacy: 89.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

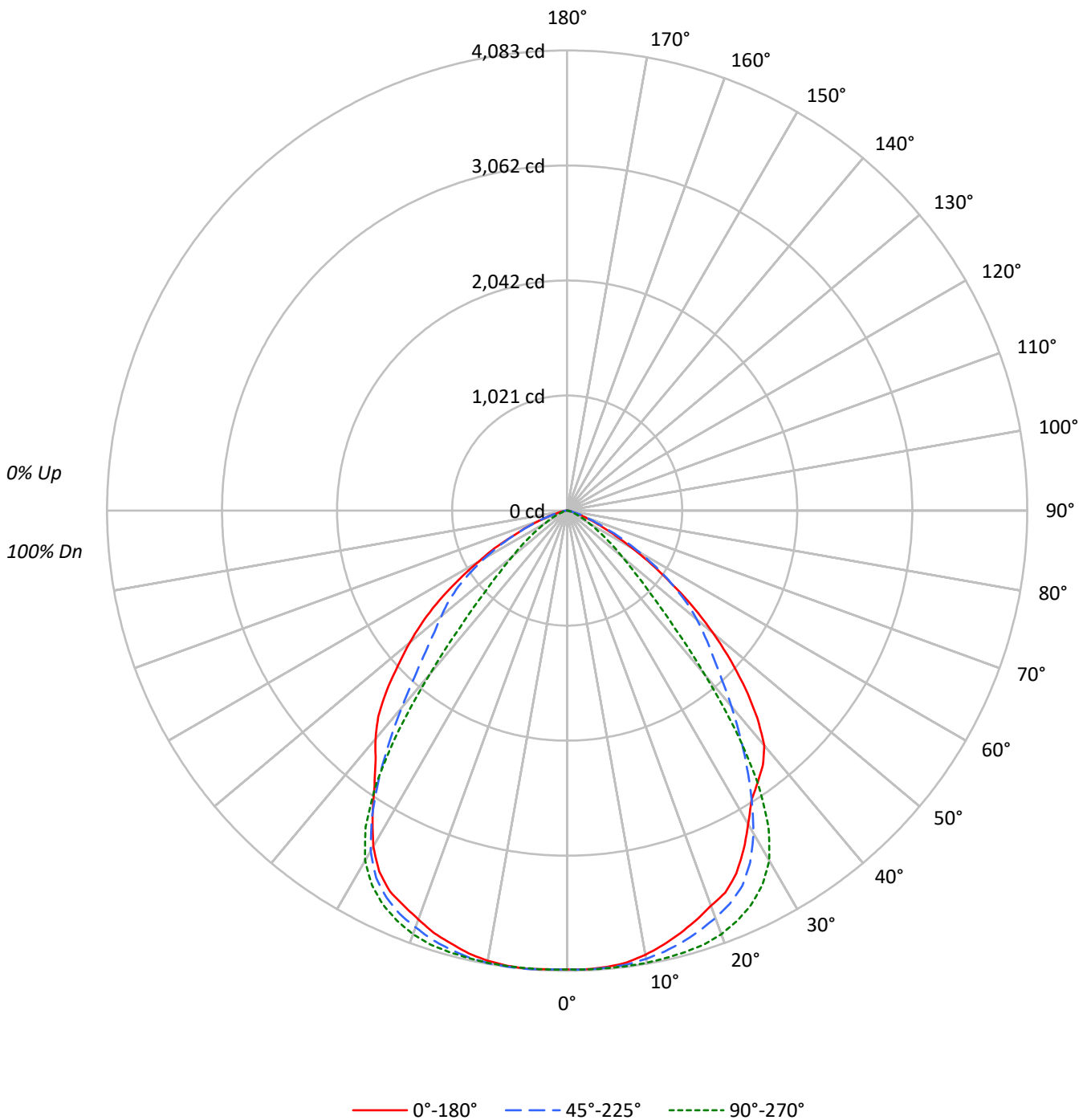
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	90
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	Luminaire represents a point source (luminous area is zero).		
5°	No luminance values can be calculated.		
10°			
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	388.6	5.0
10°-20°	1128.5	14.6
20°-30°	1712.8	22.2
30°-40°	1799.0	23.3
40°-50°	1348.8	17.5
50°-60°	865.4	11.2
60°-70°	370.2	4.8
70°-80°	87.5	1.1
80°-90°	16.3	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	3229.9	41.9
0°-40°	5028.9	65.2
0°-60°	7243.0	93.9
0°-90°	7717.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7717.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	4072	4072	4072	4072	4072	
5°	4065	4072	4076	4083	4080	386
15°	3882	3962	4054	4028	3978	1095
25°	3551	3676	3862	3792	3726	1622
35°	2946	2782	2948	2913	2979	1849
45°	2238	1829	1051	1777	2269	1714
55°	1132	1132	391	1180	1379	1027
65°	341	402	124	518	527	364
75°	52	61	18	105	103	76
85°	18	11	9	18	24	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4071.6	4071.6	4071.6	4071.6	4071.6	4071.6	4071.6	4071.6	4071.6	4071.6	4071.6
2.5°	4073.8	4078.2	4076.0	4076.0	4073.8	4076.0	4076.0	4080.4	4080.4	4076.0	4073.8
5°	4065.1	4069.5	4069.5	4065.1	4065.1	4076.0	4069.5	4073.8	4073.8	4071.6	4071.6
7.5°	4045.5	4045.5	4054.1	4047.6	4047.6	4054.1	4052.0	4056.3	4060.7	4063.0	4063.0
10°	4001.6	4006.0	4008.2	4008.2	4010.5	4017.0	4021.4	4030.1	4034.5	4038.9	4041.0
12.5°	3947.0	3953.7	3955.8	3953.7	3960.2	3968.9	3979.9	3990.8	3997.4	4006.0	4012.6
15°	3881.5	3881.5	3885.8	3892.4	3896.8	3909.9	3920.8	3933.9	3951.4	3962.4	3973.3
17.5°	3809.4	3813.8	3820.3	3820.3	3829.0	3850.9	3857.5	3877.1	3896.8	3907.7	3929.6
20°	3730.7	3735.1	3741.7	3746.0	3756.9	3774.4	3787.5	3805.0	3826.9	3846.5	3868.3
22.5°	3669.5	3660.7	3665.1	3669.5	3680.5	3695.7	3711.1	3732.8	3754.7	3774.4	3796.3
25°	3551.4	3553.7	3560.2	3564.6	3577.7	3590.8	3608.3	3634.5	3654.2	3676.1	3700.1
27.5°	3391.9	3394.2	3405.0	3405.0	3415.9	3437.8	3448.8	3470.6	3496.8	3518.7	3547.2
30°	3210.5	3214.9	3214.9	3223.7	3230.2	3241.1	3252.0	3273.9	3287.0	3306.7	3346.1
32.5°	3044.4	3048.8	3046.5	3044.4	3037.9	3035.7	3033.5	3037.9	3042.3	3048.8	3064.0
35°	2946.1	2935.1	2926.5	2911.1	2893.6	2871.8	2852.0	2825.9	2801.8	2782.1	2760.4
37.5°	2852.0	2849.9	2836.8	2814.9	2780.0	2740.6	2694.8	2637.9	2581.1	2519.9	2460.9
40°	2721.0	2714.4	2703.5	2672.9	2633.6	2585.5	2524.3	2454.3	2362.5	2268.6	2172.4
42.5°	2498.0	2500.3	2487.2	2463.1	2426.0	2380.0	2316.7	2240.2	2141.8	2030.4	1905.8
45°	2238.0	2238.0	2233.6	2213.9	2187.7	2150.5	2102.4	2039.1	1942.9	1829.2	1696.0
47.5°	1966.9	1969.1	1962.5	1958.3	1947.3	1923.3	1888.3	1840.2	1772.4	1663.1	1529.8
50°	1691.6	1691.6	1702.6	1700.3	1700.3	1691.6	1676.3	1647.9	1588.9	1501.5	1376.9
52.5°	1416.2	1420.6	1427.1	1435.9	1446.8	1464.3	1446.8	1433.6	1396.5	1328.7	1221.7
55°	1132.1	1136.5	1147.3	1162.7	1175.8	1193.3	1197.7	1197.7	1177.9	1132.1	1051.3
57.5°	889.5	882.9	891.8	904.9	922.4	939.7	952.8	968.2	966.0	935.4	869.9
60°	668.8	670.9	677.5	690.6	703.8	719.0	736.5	749.6	756.2	740.9	699.4
62.5°	487.4	487.4	496.2	509.2	515.8	537.6	548.5	555.1	561.6	559.5	533.3
65°	341.0	345.3	349.6	356.3	362.8	375.9	382.5	395.6	400.0	402.1	382.5
67.5°	240.5	233.8	238.2	242.6	249.2	257.9	271.1	271.1	277.6	277.6	264.4
70°	153.0	153.0	155.1	161.8	166.1	168.3	172.6	177.0	183.6	181.4	181.4
72.5°	102.7	100.6	102.7	104.9	107.2	113.7	113.7	115.8	120.2	122.4	113.7
75°	52.5	54.7	59.0	56.8	63.3	59.0	61.2	67.7	65.6	61.2	61.2
77.5°	43.7	43.7	43.7	41.6	45.8	45.8	43.7	48.1	45.8	45.8	43.7
80°	30.6	32.7	30.6	28.4	30.6	28.4	28.4	28.4	28.4	28.4	26.2
82.5°	24.1	19.7	21.9	19.7	21.9	21.9	19.7	17.5	17.5	19.7	17.5
85°	17.5	13.1	15.2	15.2	13.1	13.1	13.1	13.1	13.1	10.9	10.9
87.5°	10.9	6.6	6.6	6.6	8.7	8.7	8.7	6.6	8.7	8.7	4.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4071.6	4071.6	4071.6	4071.6	4071.6	4071.6	4071.6	4071.6	4071.6	4071.6	4071.6
2.5°	4078.2	4076.0	4080.4	4078.2	4078.2	4076.0	4078.2	4076.0	4080.4	4071.6	4073.8
5°	4078.2	4073.8	4076.0	4078.2	4080.4	4076.0	4076.0	4076.0	4080.4	4076.0	4078.2
7.5°	4069.5	4067.2	4073.8	4078.2	4076.0	4073.8	4078.2	4076.0	4080.4	4078.2	4082.6
10°	4052.0	4054.1	4058.5	4065.1	4067.2	4069.5	4073.8	4073.8	4080.4	4071.6	4076.0
12.5°	4025.7	4034.5	4045.5	4049.7	4058.5	4058.5	4063.0	4065.1	4069.5	4067.2	4073.8
15°	3993.0	4003.9	4017.0	4028.0	4038.9	4045.5	4052.0	4054.1	4060.7	4054.1	4056.3
17.5°	3953.7	3966.7	3986.4	3999.5	4017.0	4023.5	4032.2	4036.6	4043.2	4038.9	4041.0
20°	3899.0	3914.3	3936.2	3955.8	3966.7	3982.0	3993.0	3999.5	4003.9	3999.5	4001.6
22.5°	3822.5	3844.4	3872.7	3888.1	3909.9	3923.1	3925.2	3940.5	3951.4	3940.5	3944.9
25°	3732.8	3754.7	3776.6	3809.4	3829.0	3844.4	3859.6	3861.8	3872.7	3870.6	3868.3
27.5°	3584.3	3612.6	3649.8	3676.1	3702.2	3726.3	3743.8	3748.2	3759.2	3754.7	3756.9
30°	3380.9	3411.7	3446.6	3488.1	3525.2	3549.3	3571.2	3586.4	3597.3	3590.8	3588.7
32.5°	3092.5	3123.1	3160.3	3201.8	3245.5	3280.5	3306.7	3326.3	3339.5	3335.1	3324.2
35°	2762.5	2771.2	2795.3	2828.1	2865.2	2902.4	2926.5	2948.2	2963.6	2968.0	2968.0
37.5°	2423.7	2395.4	2377.9	2377.9	2399.7	2415.0	2436.8	2449.9	2474.0	2482.8	2489.3
40°	2095.9	2030.4	1969.1	1923.3	1892.7	1890.5	1890.5	1897.1	1918.9	1947.3	1973.5
42.5°	1803.0	1698.1	1604.2	1519.0	1457.7	1422.8	1407.5	1409.7	1427.1	1453.4	1497.1
45°	1569.2	1438.1	1320.1	1217.3	1134.2	1079.6	1053.4	1051.3	1064.4	1094.9	1143.1
47.5°	1387.8	1247.9	1114.6	996.6	907.0	847.9	817.4	808.7	817.4	845.8	902.6
50°	1237.0	1092.8	955.1	832.7	736.5	675.4	646.9	635.9	646.9	670.9	727.8
52.5°	1097.1	948.5	819.6	701.5	598.8	546.4	515.8	509.2	515.8	544.1	590.1
55°	935.4	808.7	681.9	563.9	474.3	421.8	397.7	391.2	397.7	424.0	472.1
57.5°	775.8	666.5	555.1	448.1	371.5	325.7	303.8	295.0	310.3	327.8	384.6
60°	627.2	539.9	445.8	351.9	288.5	247.0	229.5	227.2	231.7	253.6	292.8
62.5°	491.8	419.6	345.3	268.8	216.4	198.9	177.0	174.9	179.2	192.3	223.0
65°	354.0	308.2	251.3	196.7	155.1	131.2	122.4	124.5	128.9	137.7	166.1
67.5°	247.0	214.2	174.9	137.7	107.2	96.2	87.4	85.2	87.4	102.7	118.0
70°	166.1	146.4	118.0	104.9	74.3	59.0	61.2	54.7	63.3	63.3	76.5
72.5°	109.3	96.2	78.7	61.2	52.5	41.6	41.6	39.3	43.7	45.8	56.8
75°	56.8	43.7	43.7	30.6	21.9	10.9	19.7	17.5	15.2	17.5	21.9
77.5°	39.3	32.7	30.6	24.1	21.9	17.5	17.5	17.5	17.5	19.7	21.9
80°	24.1	24.1	17.5	15.2	13.1	10.9	13.1	13.1	13.1	13.1	15.2
82.5°	15.2	13.1	13.1	10.9	10.9	8.7	8.7	8.7	8.7	8.7	13.1
85°	13.1	8.7	8.7	6.6	8.7	15.2	6.6	8.7	8.7	8.7	6.6
87.5°	4.4	6.6	6.6	6.6	4.4	2.2	4.4	6.6	6.6	10.9	8.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4071.6	4071.6	4071.6	4071.6	4071.6	4071.6	4071.6	4071.6	4071.6	4071.6	4071.6
2.5°	4078.2	4080.4	4080.4	4078.2	4078.2	4073.8	4082.6	4076.0	4078.2	4086.9	4080.4
5°	4082.6	4084.7	4084.7	4082.6	4082.6	4082.6	4084.7	4084.7	4082.6	4080.4	4084.7
7.5°	4091.3	4089.1	4089.1	4084.7	4084.7	4080.4	4084.7	4078.2	4082.6	4078.2	4084.7
10°	4080.4	4082.6	4080.4	4078.2	4078.2	4076.0	4076.0	4069.5	4071.6	4065.1	4069.5
12.5°	4073.8	4071.6	4071.6	4067.2	4063.0	4058.5	4056.3	4049.7	4049.7	4034.5	4041.0
15°	4056.3	4058.5	4052.0	4043.2	4038.9	4028.0	4023.5	4014.7	4006.0	3995.1	3997.4
17.5°	4041.0	4034.5	4025.7	4017.0	3999.5	3990.8	3982.0	3968.9	3964.5	3951.4	3947.0
20°	3995.1	3990.8	3979.9	3964.5	3953.7	3933.9	3925.2	3912.1	3901.2	3888.1	3881.5
22.5°	3936.2	3931.7	3918.7	3903.3	3885.8	3877.1	3868.3	3844.4	3833.4	3820.3	3818.1
25°	3861.8	3855.2	3842.1	3824.6	3815.9	3791.9	3783.2	3765.7	3761.3	3748.2	3746.0
27.5°	3748.2	3739.4	3724.2	3702.2	3687.0	3671.7	3663.0	3649.8	3645.5	3632.3	3630.1
30°	3577.7	3566.8	3536.2	3527.5	3501.2	3485.9	3485.9	3468.4	3470.6	3461.9	3461.9
32.5°	3308.9	3291.4	3267.4	3249.9	3232.4	3223.7	3223.7	3217.0	3221.4	3221.4	3225.8
35°	2952.6	2928.6	2915.5	2904.5	2904.5	2913.3	2939.5	2946.1	2959.2	2970.1	2978.8
37.5°	2495.8	2493.7	2509.0	2522.1	2554.9	2592.1	2637.9	2677.3	2714.4	2740.6	2766.9
40°	2001.9	2056.6	2100.3	2161.5	2211.7	2283.8	2366.9	2434.7	2498.0	2544.0	2592.1
42.5°	1562.7	1632.6	1724.4	1814.0	1903.6	2001.9	2111.3	2205.2	2288.3	2351.6	2401.9
45°	1217.3	1313.5	1425.0	1538.6	1654.5	1776.9	1890.5	1986.6	2074.1	2139.7	2189.9
47.5°	981.3	1086.2	1212.9	1337.6	1468.6	1597.6	1724.4	1807.4	1879.6	1932.0	1977.9
50°	810.8	922.4	1055.6	1197.7	1328.7	1457.7	1567.0	1647.9	1706.9	1752.8	1781.2
52.5°	677.5	795.5	937.6	1079.6	1210.8	1328.7	1427.1	1488.4	1536.4	1569.2	1595.4
55°	559.5	673.2	806.4	939.7	1068.8	1180.2	1261.0	1307.0	1344.1	1363.7	1379.1
57.5°	456.8	561.6	684.0	806.4	917.9	1009.7	1073.1	1119.0	1136.5	1151.7	1149.6
60°	358.5	456.8	568.2	673.2	769.3	843.6	889.5	915.7	928.9	935.4	931.0
62.5°	281.9	371.5	456.8	548.5	618.5	681.9	725.6	725.6	732.1	734.4	740.9
65°	209.7	277.6	351.9	419.6	476.4	518.0	542.0	548.5	557.4	555.1	550.7
67.5°	155.1	205.5	260.1	310.3	349.6	375.9	393.4	408.7	406.5	402.1	400.0
70°	107.2	139.9	188.0	218.6	247.0	273.2	277.6	279.7	281.9	284.2	279.7
72.5°	74.3	98.3	124.5	150.8	168.3	179.2	190.1	192.3	192.3	192.3	190.1
75°	37.2	50.2	74.3	85.2	100.6	104.9	113.7	113.7	120.2	111.4	109.3
77.5°	32.7	39.3	52.5	61.2	67.7	74.3	76.5	83.1	80.8	76.5	78.7
80°	19.7	24.1	32.7	37.2	45.8	48.1	50.2	52.5	50.2	52.5	52.5
82.5°	15.2	17.5	21.9	21.9	28.4	28.4	30.6	30.6	32.7	32.7	32.7
85°	8.7	15.2	13.1	26.2	17.5	17.5	21.9	26.2	21.9	21.9	26.2
87.5°	8.7	8.7	6.6	8.7	8.7	8.7	10.9	13.1	13.1	15.2	13.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P249400

CATALOG NUMBER: LSR8B90D010 EC8B90930 8LBDW0GPH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	4071.6	4071.6	4071.6	4071.6
2.5°	4078.2	4082.6	4076.0	4073.8
5°	4084.7	4084.7	4080.4	4080.4
7.5°	4084.7	4084.7	4078.2	4073.8
10°	4067.2	4067.2	4060.7	4056.3
12.5°	4034.5	4034.5	4032.2	4025.7
15°	3993.0	3993.0	3984.1	3977.6
17.5°	3936.2	3940.5	3929.6	3929.6
20°	3875.0	3872.7	3864.0	3859.6
22.5°	3811.5	3807.1	3805.0	3791.9
25°	3743.8	3739.4	3732.8	3726.3
27.5°	3628.0	3625.8	3619.3	3610.5
30°	3450.9	3448.8	3440.0	3440.0
32.5°	3221.4	3219.3	3210.5	3212.8
35°	2983.2	2991.9	2987.6	2978.8
37.5°	2784.3	2791.0	2795.3	2791.0
40°	2618.2	2637.9	2640.1	2644.6
42.5°	2441.2	2467.4	2476.2	2480.5
45°	2229.2	2253.3	2272.9	2268.6
47.5°	2012.9	2030.4	2047.8	2034.7
50°	1805.3	1816.1	1822.7	1822.7
52.5°	1608.5	1608.5	1606.4	1608.5
55°	1383.4	1383.4	1374.7	1379.1
57.5°	1147.3	1151.7	1145.2	1134.2
60°	928.9	917.9	913.5	907.0
62.5°	723.4	723.4	708.1	727.8
65°	542.0	535.5	528.9	526.6
67.5°	393.4	391.2	384.6	382.5
70°	277.6	268.8	266.7	262.2
72.5°	185.7	185.7	181.4	181.4
75°	113.7	102.7	100.6	102.7
77.5°	78.7	76.5	76.5	74.3
80°	52.5	50.2	54.7	48.1
82.5°	32.7	35.0	32.7	35.0
85°	21.9	26.2	24.1	24.1
87.5°	13.1	13.1	13.1	13.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)